



Analog 4498

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Shvarts **GROUP:** 2634
SERIAL NO: 09/325,099 **EXAMINER:** Kim, Kevin.
FILED: 06/03/1999
FOR: TRANSLATION LOOP MODULATOR

Assistant Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION OF JONATHAN STRANGE UNDER 37 C.F.R.§1.132

I Jonathan Strange, hereby declare and state as follows.

1. I am currently employed by Analog Devices, Inc. as an Integrated Circuit (IC) Design Manager.
2. I have been employed by Analog Devices, Inc. for more than 10 years and have been an IC Design Engineer for the past 21 years.
3. I have a MSc degree in Electrical Engineering (1985) from the University of Edinburgh (Scotland,UK) and a BSc degree in Physics from Durham University (England,UK) .
4. I am familiar with the above referenced patent application, the cited prior art, and

the final office action mailed July 11, 2006 in connection with the above referenced patent application.

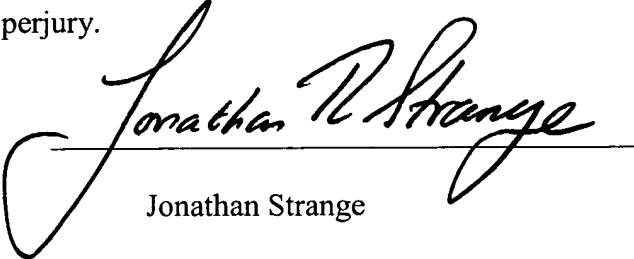
5. The present application is directed to a dual band radio frequency transmitter system that may operate, for example, either of two modes of operation.

6. Although the circuit of the invention provides dual band operation using a specific frequency (i.e., $F_{LO} = F_{OUT} / (1 + m/n)$ in a first mode of operation and $F_{LO} = F_{OUT} / (1 - m/n)$), techniques for switching between frequency modes of operation had been known prior to the present invention. By 1999, many techniques existed for switching between modes, including the use of PIN diodes, MESFET transistors or a cascode current switch. The connection paths would be hard wired, and the appropriate signal would be chosen by applying a switching voltage or current.

7. Those skilled in the art in early 1999 would have known that any of the then conventional techniques for providing mode switching could have been employed to achieve the switching between operating modes.

Signed under penalties of perjury.

Date: 28th September, 2006


Jonathan Strange